



# UNITED STATES PATENT AND TRADEMARK OFFICE

W  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/006,363	01/13/1998	KATSUYA NAKAGAWA	47958	3646
21874	7590	04/02/2004	EXAMINER	
EDWARDS & ANGELL, LLP P.O. BOX 55874 BOSTON, MA 02205			NGUYEN, JIMMY H	
		ART UNIT		PAPER NUMBER
		2673		26
DATE MAILED: 04/02/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
P.O. Box 1450  
ALEXANDRIA, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 26

Application Number: 09/006,363

Filing Date: January 13, 1998

Appellant(s): NAKAGAWA, KATSUYA

William J. Daley, Jr.  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 02/09/2004.

**(1) Real Party in Interest**

A statement identifying the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

**MAILED**  
APR 02 2004  
Technology Center 2600

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

Appellant's brief includes a statement that claims 1 and 4; 2, 3, 5-18, 20, 22 and 24; 19; and 21, 23 and 25 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8) *ClaimsAppealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

5,581,243	OUELLETTE et al.	12-1996
4,914,624	DUNTHORN	4-1990
5,392,035	YOSHIKAWA	2-1995

Applicants' Admitted Prior Art, the pending application, fig. 1, page 4, lines 15-24.

**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

***Drawings***

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated (see specification, page 4, last two paragraphs). See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette et al. (USPN: 5,581,243), hereinafter Ouellette.

As per claims 1 and 4, Ouellette discloses a virtual keyboard comprising a display (a display 28) for displaying a keyboard (a keyboard K), a transparent pressure sensitive panel (a touch screen 24) disposed on the display and a processor (a touch screen controller 18) for receiving information of positions detected and sent in a time sequence from the pressure sensitive panel when any key in the keyboard is pushed, identifying a position of the pushed key according to a coded electrical signal corresponding to the touched locations and outputting a code corresponding to a pushed key (figure 1, col. 1, lines 45-63 and col. 5, lines 4-10).

Furthermore, Ouellette teaches a well-known virtual keyboard functioning as a conventional keyboard or typewriter (col. 1, lines 27-63). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to recognize how a conventional keyboard operates, e.g., in order to display a capital "A", a special key "Shift" is first pushed and thereafter

when both of the special key "Shift" and a general key "a" are pushed at the same time, the keyboard outputs a "A" code corresponding to the pushed combination of the special key "Shift" and the general key "a", and a capital "A" is thereby displayed on the screen. In other words, Ouellette teaches a well-known virtual keyboard having a function that when a special key is first pushed and thereafter when both of the special key and a general key are pushed at the same time, a code corresponding to the combination of the pushed special key and the general key is output, thereby displaying a character corresponding the code. It would have been obvious to one skill in the art to utilize the well-known virtual keyboard's such function in Ouellette because this would allow the user to operate the virtual keyboard in the same manner fashion as a user operate on a conventional keyboard (col. 1, lines 52-54). Therefore, it would have been obvious to obtain the claimed invention as specified in claims above.

3. Claims 2, 3, 5-18, 20, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette, and further in view of Dunthorn (USPN: 4,914,624).

In regard to claims 2 and 3 as applied to claim 1 above, and claims 5 and 6 as applied to claim 4 above, Ouellette discloses all the claimed limitations except that Ouellette does not disclose expressly that one of the received position information, when both of the special key and the general key are pushed at the same time, is a furthest returning position from the special key and the position of the general key is determined by doubling a distance between a start position and the furthest returning point, as recited in claims 2 and 5, or determining the position of the general key by doubling a distance between a special key position and the furthest returning position, as recited in claims 3 and 6.

However, Dunthorn discloses that it has been discovered that a first button, obviously considered as a special key, is first pushed and thereafter when both the first button and the second button obviously considered as a general key, are pushed at the same time, the touch screen returns an information including a middle position (corresponding to the claimed furthest returning position) between two touched locations or two touched keys (col. 4, lines 4-30, lines 47-68). Furthermore, it would have been obvious to one of ordinary skill in the art to identify the position of the second button (i.e., the general key) from the received middle position (i.e., the furthest returning position) by doubling a distance between the position of the first button and the position of the returning middle point. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to utilize Dunthorn's teaching above in the device of Ouellette because this would extend the functionality of the keyboard, as taught by Dunthorn, (col. 2, lines 57-60). Therefore, it would have been obvious to combine Dunthorn with Ouellette to obtain the claimed invention as specified in claims above.

In regard to claims 7-17, due to the similarities of these claims to those of claim 2 above, these claims are therefore rejected for the same reason as set forth in claim 2 above.

As per claims 18, 20, 22 and 24, Dunthorn further discloses a touch sensitive screen embodying the divide resistance technique for determining the position in each of the x and y directions (col. 4, lines 4-44).

4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette, and further in view of Yoshikawa (USPN: 5,392,035).

As per claim 19, Ouellette further discloses the transparent pressure sensitive panel (a touch screen 24) being resistive type pressure panel (col. 4, line 61 through col. 5, line 10), but

Art Unit: 2673

does not disclose expressly a plurality of resistance wires arranged in a first direction, a plurality of resistance wires arranged in a second direction and two pairs of electrodes, as claimed.

However, Yoshikawa teaches a well-known conventional resistive-type transparent sensitive panel (fig. 3) comprising a plurality of resistance wires (Rx) being arranged in X-direction and a plurality of resistance wires (Ry) being arranged in Y-direction; a first pair of electrodes (1A, 1B) and a second pair of electrodes (41A, 4B) (col. 1, line 21 through col. 2, line 34). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to recognize that Yoshikawa remedies for the deficiency of Ouellette in order to detail all elements of resistive-type transparent sensitive panel. Therefore, Ouellette in view of Yoshikawa discloses the claimed invention as specified in claim above.

5. Claims 21, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette in view of Dunthorn, as applied to claims 7, 11 and 14 above, and further in view of Yoshikawa.

As per claims 21, 23 and 25, due to the similarities of these claims to the combinations of claim 19 and respectively claim 21 or 23 or 25, these claims are therefore rejected for the reason as set forth above.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette, as applied to claim 1 above, and further in view of Applicant's Admitted Prior Art, hereinafter AAPA.

As per claim 19, Ouellette further discloses the transparent pressure sensitive panel (a touch screen 24) being resistive type pressure panel (col. 4, line 61 through col. 5, line 10), but

does not disclose expressly a plurality of resistance wires arranged in a first direction, a plurality of resistance wires arranged in a second direction and two pairs of electrodes, as claimed.

However, AAPA disclose a prior art resistive-type transparent sensitive panel (fig. 1) comprising a plurality of resistance wires (10) being arranged in X-direction and a plurality of resistance wires (10) being arranged in Y-direction; a first pair of electrodes (11s) and a second pair of electrodes (11s) (fig. 1, page 4, lines 15-24). It would have been obvious to a person of ordinary skill in the art at the time of the invention to recognize that AAPA remedies for the deficiency of Ouellette in order to detail all elements of resistive-type transparent sensitive panel. Therefore, Ouellette in view of AAPA obviously discloses the claimed invention as specified in claims above.

7. Claims 21, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette in view of Dunthorn, as applied to claims 7, 11 and 14 above, and further in view of AAPA.

As per claims 21, 23 and 25, due to the similarities of these claims to the combinations of claim 19 and respectively claim 21 or 23 or 25, these claims are therefore rejected for the reason as set forth above.

**(11) Response to Argument**

1. Regarding to the rejection under 35 USC 103(a) to independent claims 1 and 4, Appellant states that the cited reference nowhere explicitly teaches that when a special key is first pushed and thereafter when both of the special key and the general key are pushed at the same time, a code corresponding to the combination of the pushed special key and the general key is output, thereby displaying a character corresponding to the code. See page 11, lines 4-7, of the Appeal

Brief. Examiner disagrees because as discussed in the above detailed rejection, Ouellette teaches a well-known virtual keyboard functioning as a conventional keyboard or typewriter (col. 1, lines 27-63) which is capable to perform a function that when a special key is first pushed and thereafter when both of the special key and the general key are pushed at the same time, a code corresponding to the combination of the pushed special key and the general key is output, thereby displaying a character corresponding to the code.

2. Regarding to the rejection under 35 USC 103(a) to independent claims 2, 3, 5-18, 20, 22 and 24, Appellant states that Dunthorn nowhere teaches a process for determining the position of a second button, page 25, first paragraph, of the Appeal Brief. Examiner disagrees because as discussed in the detailed rejection above, Dunthorn discloses that when both the first button (point) and the second button (point) are pushed at the same time, the touch screen returns an information including a middle position between two touched locations or two touched keys (col. 4, lines 4-10). Furthermore, Dunthorn teaches that, each button's position is identified (i.e., the position of a second button is determined) in order to actuate a corresponding function corresponding to two simultaneous touched positions (col. 4, lines 45-68).

Further, Appellant states that the references cited , alone or in combination, include no motivation, see page 27, lines 13-19. Examiner disagrees because as discussed in the rejection, the benefit of using Dunthorn's teaching above in the device of Ouellette would extend the functionality of the keyboard, as taught by and found in the Dunthorn reference at col. 2, lines 57-60.

For the above reasons, it is believed that the rejections should be sustained.

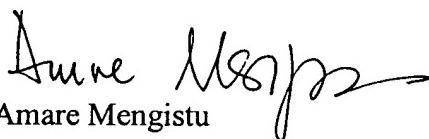
Respectfully submitted,



Jimmy H. Nguyen  
Examiner

JHN  
March 31, 2004

Conferees  
Bipin Shalwala

  
Amare Mengistu

Amare Mengistu  
Primary Examiner

DIKE BRONSTEIN  
ROBERT & CUSHMAN  
130 WATER STREET  
BOSTON, MA 02109



BIPIN SHALWALA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600